

using such techniques are target transformations or curve fitting. Neither the principal component nor the neural network analyses are suitable for the detection of two diseases.

Substitute the following for the paragraph at page 7, line 3 to page 8, line

5. This paragraph is reproduced in Appendix A hereto with markings showing the change made by this amendment.

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The test data used in the present invention are values that are proportional to, or otherwise representative of, the levels of various antibodies that are associated to various degrees with systemic autoimmune diseases. Currently, over 100 antibodies are known to be expressed in autoimmune diseases.

Examples are listed in Peter, J.B., et al., *Autoantibodies*, Elsevier Science B.V., Amsterdam (1996), the contents of which are incorporated herein by reference. The antigens to many of these antibodies are commercially available, while the antigens to others are readily synthesized based on descriptions of them that are available in the literature. Some of the sources of these antigens are BiosPacific, of Emeryville, California, USA; Immunovision, of Springdale, Arkansas, USA; and KMI Diagnostics, Inc., of Minneapolis, Minnesota, USA. Examples of the antibodies that are expressed in autoimmune diseases, identified by the antigens to which they bind in an immunoassay, are listed below:

SSA 60

SSA 52

SSB 48

Sm BB'

Sm D1

RNP 68

RNP A

RNP C

Fibrillarin